STAT

[redacted]

August 12, 1970

Attention: John C.

Dear John:

Enclosed for your files are three (3) copies of
STAT Activity Summary No. 11, [redacted] 2201201-AS-11, dated
August 12, 1970.

STAT

Sincerely,

[redacted]

Senior Scientist

RAP/c
Enclosures

Approved For Release 2005/11/21 : CIA-RDP78B05171A000500020052-6

STAT

[redacted]

August 12, 1970

To: John C.

From: [redacted] STAT

Subject: Contract Visit To Customer Facility

[redacted] STAT

Date: July 27, 28, 1970

STAT Reference: [redacted]2201201-AS-11

The objective was to work on the Beck bench and to make DC filters. On Monday, John and I reviewed the two and three lens processing system set up by John the previous week. When comparing the two systems the noise in the transform plane has to be monitored as well as the resolution in the image plane. The best system resolution does not always give the best transform display. There is a trade off that depends on the type of filtering to be performed. John and/or the Co-op students will work with these two systems to determine the optimum for the optical processor.

Monday afternoon and Tuesday were devoted to the design and fabrication of DC filters. Using a small aperture and the enlarger, several filters of various sizes were made by changing the amount of demagnification. The shape of the filter (gradient) is controlled by defocusing the image on the enlarger, and the density is controlled by the exposure time. The first set of filters were traced on the micro-densitometer to measure the peak density and the gradient. Using the three lens system on the Beck bench we filtered a resolution target. The results showed amplitude inversions indicating that the filters were too dense. More filters will be made with a much lower exposure range. This should eliminate the amplitude inversions.

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